	Hits	Search Text
1	82	blood with (analys$3 or test$2) with gastrointestin$4
2	44	(blood with (analys$3 or test$2) with gastrointestin$4) and absor$6
3	496	(436/66).CCLS.
4	56	((436/66).CCLS.) and gastrointest$5
5	56	((upper or lower) near2 gastrointest$5) with blood
6	17	(((upper or lower) near2 gastrointest$5) with blood) and absorpt$5
7	101	"Soret band"
8	45	"Soret band" and blood
9	594	((upper or lower) near2 gastrointest$5) and blood
10	73	(((upper or lower) near2 gastrointest$5) and blood) and spectrosc$5
11	189	(((upper or lower) near2 gastrointest$5) and blood) and (nanometers or "nm")
12	4	"9915384"
13	135	(hemoglobin or haemoglobin) and hematin
14	23	((hemoglobin or haemoglobin) and hematin) and (gastro$8 or GI)
15	3	"1397835"

	Hits	Search Text
16	27	((hemoglobin or haemoglobin) and hematin) and spectrosc$6
17	93	((hemoglobin or haemoglobin) and hematin) and (nanometers or "nm")
18	70	(((hemoglobin or haemoglobin) and hematin) and (nanometers or "nm")) and spectr$8
19	2	ferriheme and ferroheme and ("nm" or nanometers)
20	2281	(436/63,64,66,67).CCLS.
21	1693	((436/63,64,66,67).CCLS.) and blood
22	512	(((436/63,64,66,67).CCLS.) and blood) and spectr$8
23	496	(436/66).CCLS.
24	496	(436/66).CCLS.
25	100	((436/66).CCLS.) and spectr$8
26	4909	fecal
27	3023	fecal and (collect$4 or extract$5)
28	1453	(fecal and (collect$4 or extract$5)) and absorb$5
29	779	((fecal and (collect$4 or extract$5)) and absorb$5) and (blood or hemoglobin or heme or haemoglobin)
30	2	("3,996,006").PN.

	Hits	Search Text
1	7	(("4526869") or ("4013417") or ("5416025")).PN.
2	3	"2000029852"
3	6	"1131637"
4	1	"0744233"
5	0	"EP0744233"
6	0	"EP 0744233"
7	2	("5064766").PN.
8	21	(ferric near3 heme) and (ferrous near4 heme)
9	15	((ferric near3 heme) and (ferrous near4 heme)) and spectr$6
10	21	Soret with (heme or haemoglobin or ferric)
11	82	hematin and (hemoglobin or haemoglobin) and spectr$6
12	75	(hematin and (hemoglobin or haemoglobin) and spectr$6) and "nm"
13	1	((hematin and (hemoglobin or haemoglobin) and spectr$6) and "nm") and Soret
14	2	("5008388").PN.
15	2	("4378971").PN.

	Hits	Search Text
16	575	ferric and ferrous and (heme$4 or haemoglob$4 or hemoglob$4)
17	188	(ferric and ferrous and (heme$4 or haemoglob$4 or hemoglob$4)) and spectr$5 and "nm"
18	61	((ferric and ferrous and (heme$4 or haemoglob$4 or hemoglob$4)) and spectr$5 and "nm") and upper
19	2	("5460969").PN.
20	17	(nitrocellulose near3 filter) with (blood or bleed$4)
21	8	(nitrocellulose near3 filter) with glycerol
22	2	(glycerol near6 transparen$4) with spectr$7
23	404	"TE buffer" and (heme$4 or haemoglob$4 or hemoglob$4)
24	221	("TE buffer" and (heme$4 or haemoglob$4 or hemoglob$4)) and spectr$6
25	1	"TE buffer" with (heme$4 or haemoglob$4 or hemoglob$4)
26	175	(("TE buffer" and (heme$4 or haemoglob$4 or hemoglob$4)) and spectr$6) and (blood or bleed$4)
27	2	"TE buffer" with (heme$4 or haemoglob$4 or hemoglob$4 or biologic$3)
28	3	"TE buffer" with (heme$4 or haemoglob$4 or hemoglob$4 or biologic$3 or fecal)
29	0	"TE buffer" with "7.4" with biologic$4
30	229	"TE buffer" with "7.4"

	Hits	Search Text
31	16	spectr$6 with (heme$4 or haemoglob$4 or hemoglob$4 or biologic$3) with neural
32	138	spectr$6 with Simplex
33	0	copratinb
34	0	copratin
35	0	copratoporphyrin
36	187	(ferri$4 or ferro$4) near5 heme
37	40	((ferri$4 or ferro$4) near5 heme) and (IR or NIR or FTIR or infrared)
38	479	hemoglobin$3 with (FTIR or IR or infrared)
39	451	hemoglobin$3 with (FTIR or infrared)
40	0	(hemoglobin$3 with (FTIR or infrared)) and (ferri and ferro)
41	7	(hemoglobin$3 with (FTIR or infrared)) and (ferri$5 and ferro$5)

Am. J. Gastroenterol. 1999 Feb;94(2):344-50
"Detection of upper gastrointestinal blood with fecal occult blood tests"
Rockey DC, Auslander A, Greenberg PD.

Department of Medicine, University of California, San Francisco, USA.

OBJECTIVE: Although fecal occult blood (FOB) tests have most often been used to detect occult bleeding from the lower gastrointestinal (GI) tract, their utility in detecting occult blood loss from the upper GI tract is less well understood. The aims of this study were to determine whether small amounts of blood from the upper GI tract can be detected by currently available FOB tests and, if so, to correlate FOB tests with semiquantitative GI blood. METHODS: Groups of 10 healthy volunteers without a history of GI disease drank 5, 10, or 20 ml of their own blood mixed with tomato juice for 5 or 3 consecutive days. Standard dietary and medication restrictions were observed. Consecutive stools were tested for 2 days before, as well as 4 days after, blood ingestion. Each stool was simultaneously tested for FOB with HemoQuant (HQ), Hemoccult II (HO II), Hemoccult II SENSA (SENSA), HemeSelect (HS), and FlexSure OBT (FS). RESULTS: The mean age and hemoglobin concentration of the study population were 29.3+/-0.5 yr and 14.3+/-0.3 g/dl, respectively. No subject noted GI symptoms during blood ingestion. Fecal blood levels (measured by HQ) were elevated within 2 days after initiation of blood ingestion and remained elevated until 2-3 days after cessation of blood ingestion. Mean fecal blood levels peaked at 2.1, 7.9, 8.0, and 13.5 (mg hemoglobin/g stool) in groups ingesting 5 ml/5 days, 10 ml/3 days, 10 ml/5 days, and 20 ml/3 days, respectively. The proportion of positive tests during and immediately after the period of blood ingestion was greatest in the 20 ml/3 day group; 16% of HO II samples were positive as were 64% of SENSA and 67% of HQ samples. SENSA was more sensitive than HO II in all blood ingestion groups. At least one positive SENSA test was present in 50% of subjects ingesting 10 ml of blood (each 3 and 5 day groups) and in all subjects ingesting 20 ml/day. Immunochemical tests did not detect upper GI blood in any blood ingestion group. CONCLUSION: Inasmuch as many upper GI tract lesions have been reported to bleed small quantities of blood such as that studied here, and this amount of blood is readily detected with widely used guaiac-based FOB tests including Hemoccult II SENSA, the data emphasize that caution is warranted before attributing positive guaiac tests only to sites in the lower GI tract. The data raise the possibility that a combination of a highly sensitive guaiac-based FOB test plus an immunochemical could help differentiate occult upper from lower GI bleeding.

FILE 'CAPLUS' ENTERED AT 09:23:34 ON 12 FEB 2002
L1 39 S (UPPER OR LOWER) (2W) (GASTROINTEST? OR GI) (10A) BLOOD
L2 46 S (UPPER (2W) (GASTROINTEST? OR GI)) AND (LOWER (2W) (GASTROIN
L3 8997 S (GASTROINTEST? OR GI) AND BLOOD
L4 209 S L3 AND SPECTR?
L5 99 S L4 AND ABSOR?
L6 97 S (GASTROINTEST? OR GI) AND (ABSORP? (2W) SPECTR?)
L7 652 S OCCULT (3W) (BLOOD OR BLEED?)

L8 97 S L7 AND (GASTRO? OR GI)
L9 3 S L8 AND SPECTR?
L10 15 S FOB AND SPECTR?
L11 261 S (UPPER OR LOWER) (2W) (GASTROINTEST? OR GI) AND BLOOD
L12 4 S L1 AND (TEST? OR ANALY? OR DETECT?) (3W) BLOOD
L13 787 S BLOOD (5A) (ANALYS? OR DETECT? OR TEST?) AND (GASTRO? OR GI)
L14 41 S L13 AND SPECTR?
L15 700 S (HAEMOGLOBIN OR HEMOGLOBIN) AND HEMATIN
L16 5 S L15 AND (GASTRO? OR GI)
L17 38 S (HAEMOGLOBIN OR HEMOGLOBIN) AND HEMATIN AND (ABSORPTION (3W)

L14 ANSWER 6 OF 41 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 2000:351754 CAPLUS
DOCUMENT NUMBER: 132:331700
TITLE: A method of detecting the presence of an analyte in a biological sample
INVENTOR(S): Chandler, Howard Milne; Sinatra, Marc
PATENT ASSIGNEE(S): Enterix Inc., USA
SOURCE: PCT Int. Appl., 49 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000029852	A1	20000525	WO 1999-AU1014	19991117
BR 9915384	A	20010731	BR 1999-15384	19991117
EP 1131637	A1	20010912	EP 1999-957736	19991117

PRIORITY APPLN. INFO.: AU 1998-7134 A 19981117
WO 1999-AU1014 W 19991117

AB The present invention relates generally to a method of detecting the presence of an analyte in a biol. sample. A first method for detecting blood in a biol. sample involves applying a sample to a first region of a test matrix, detecting globin or Hb by means of an immunol. test in a second region of the test matrix and detecting heme by means of a chromogen based test in a third region of the test matrix. This method is capable of differentiating between upper and lower gastrointestinal tract bleeding and is useful for the diagnosis of gastrointestinal tract diseases, in particular, lower gastrointestinal tract diseases such as colorectal cancer. A second method disclosed involve s applying a sample to a first region of a test matrix, the sample is allowed to flow to a second region where it contacts an anti-analyte immunointeractive mol. and a labeled anti-analyte immunointeractive conjugate. Any analyte-anti-analyte complex that is formed is

immobilized and detected in this second region, any uncomplexed labeled anti-analyte immunointeractive conjugate is allowed to flow to a third region where it is detected.
REFERENCE COUNT: 13

L14 ANSWER 20 OF 41 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1989:150946 CAPLUS
DOCUMENT NUMBER: 110:150946
TITLE: Method of measuring blood loss from gastrointestinal tract
INVENTOR(S): Kanishchev, P. A.; Bereza, N. M.; Perevyazka, A. V.; Senyuk, V. F.
PATENT ASSIGNEE(S): Dnepropetrovsk Medical Institute, USSR
SOURCE: U.S.S.R. From: Otkrytiya, Izobret. 1988, (19), 178-9.
CODEN: URXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Russian
PATENT NO. KIND DATE APPLICATION NO. DATE
--- --- --- --- ---
SU 1397835 A1 19880523 SU 1986-4090023 19860707
AB Blood loss from the gastrointestinal tract in chronic diseases of the digestive organs is detd. by (1) detg. the Hb level in the blood, (2) collection of stools over 24 h, suspending them in distd. H2O, with subsequent addn. of p-methylaminophenol sulfate and H2O2, and colorimetry, and (3) calcn. of the blood loss taking into account extinction of the org. reagent- and H2O2-treated std. cyanoHb soln. by use of a formula.

L14 ANSWER 27 OF 41 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1983:85722 CAPLUS
DOCUMENT NUMBER: 98:85722
TITLE: Quantitative determination of gastrointestinal bleeding in rats
AUTHOR(S): Ghanayem, Burhan I.; Ahmed, Ahmed E.
CORPORATE SOURCE: Dep. Pharmacol., Univ. Texas, Galveston, TX, USA
SOURCE: J. Pharmacol. Methods (1982), 8(4), 311-18
CODEN: JPMED9; ISSN: 0160-5402
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A method for the quant. detn. of gastrointestinal bleeding in rats is described which is dependent upon the extn. of blood from stomach, intestinal contents, or feces of rats by a modification of the method of J. B. Fox and J. S. Thomson (1964). The blood (heme) in the dry ext. is measured spectrophotometrically after conversion to pyridine hemochromogen. The heme concn. is detd. from the spectrophotometric scans of the dithionate-reduced vs. the oxidized pyridine hemochromogen. The current method is suitable for the quant. detn. of acute and chronic gastrointestinal blood loss. It is also exptl. useful as a pharmacol. screening technique and for quant. comparisons of drug-induced gastrointestinal bleeding. Contrary to existing methods, this method is easier, reproducible, accurate, less expensive, less time consuming, less risky (no radioactive material is required), useful in providing some information about the site of gastrointestinal bleeding, and is not influenced by changes in bile formation and flow.

L14 ANSWER 41 OF 41 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1936:34356 CAPLUS
DOCUMENT NUMBER: 30:34356
ORIGINAL REFERENCE NO.: 30:4526a-d
TITLE: "Analysis of feces for blood degradation products in diseases of the gastrointestinal tract"
AUTHOR(S): *Boas, I.*
SOURCE: **Arch. Verdauungs-Krankh. (1935), 58, 249-67**
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB cf. C. A. 29, 7365.2. As an aid in differentiation of benign and malignant bleeding the porphyrin content of feces, as well as hemoglobin (Hb) and hemin, should be investigated. A modified test for unchanged Hb is given. For more complete analysis, feces (50 g.?) are extd. 5-6 hrs. with 50 cc. acetone; the filtrate contains Hb and porphyrins, but not hematin, and may be examined directly in spectroscope for Hb, oxy-Hb or met-Hb. A series of confirmatory tests is described. The porphyrins are extd. from the acetone filtrate with ether after addn. Of 20 drops glacial AcOH, the ether ext. is washed free of acid and bile pigments and coproporphyrin extd. therefrom with 0.1% HCl. The deutero- and protoporphyrins remaining are then removed with 0.40% HCl. A semiquantitative estimate of each is obtained by detn. of the extraction number, i. e., the number of extns. required to remove, under standard conditions, all or nearly all of a given porphyrin as revealed by spectroscopic examn. of the successive exts. For the detn. Of porphyrins in urine a method is described which involves conversion to the iron porphyratins, extn. with CHCl3, oxidation of the evapd. ext. with KClO3 and HCl, and colorimetric detn. of the resulting ferric iron as the thiocyanate.

L16 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1999:317408 CAPLUS
DOCUMENT NUMBER: 130:347165
TITLE: DX-9065a, an orally active factor Xa inhibitor, does not facilitate hemorrhage induced by tail transection or gastric ulcer at the effective doses in rat thrombosis model
AUTHOR(S): Tanabe, Kiyoshi; Morishima, Yoshiyuki; Shibutani, Tomoko; Terada, Yasuko; Hara, Tsuyoshi; Shinohara, Yasutaka; Aoyagi, Kazuharu; Kunitada, Satoshi; Kondo, Takashi
CORPORATE SOURCE: Tokyo RD Center, Global Medical Planning Department, Daiichi Pharmaceutical Co. Ltd., Tokyo, 134, Japan
SOURCE: Thromb. Haemostasis (1999), 81(5), 828-834
CODEN: THHADQ; ISSN: 0340-6245
PUBLISHER: F. K. Schattauer Verlagsgesellschaft mbH
DOCUMENT TYPE: Journal
LANGUAGE: English
AB DX-9065a is an antithrombin III (AT III)-independent and selective inhibitor of activated blood coagulation factor X (FXa). The effects were evaluated of DX-9065a and warfarin on bleeding time and blood loss in rat tail transection model and on blood loss in HCl-induced rat gastrointestinal hemorrhage model. The blood loss was detd. By measuring the Hb content in saline immersed with transected tail or hematin chloride

content in the gaster after HCl administration. DX-9065a or warfarin was administered orally at 1 h or 15-21 h before the hemorrhagic stimuli, resp. The dose required for 50% inhibition of thrombus formation (ID5) was 21 mg/kg for DX-9065a and 0.75 mg/kg for warfarin in a Cu wire-inserted arteriovenous (AV) shunt model. In contrast to DX-9065a (10 or 30 mg/kg), warfarin (0.75 mg/kg) prolonged the bleeding time. In rat tail transection model, the blood loss for the control group was 102 .mu.L at 20 min after the transection. While warfarin (0.75 mg/kg) facilitated the blood loss about 5 times as much as the control, DX-9065a (10 or 30 mg/kg) did not. In rat gastrointestinal model, the blood loss for the control group was 15.9 .mu.L at 15 min after HCl administration. In contrast to DX-9065a (10 or 30 mg/kg), warfarin (0.75 mg/kg) increased the blood loss about twice as much as the control. Thus, compared with warfarin, DX-9065a only increased bleeding time or blood loss to a minor extent in the doses tested. These observations suggest that direct inhibition of FXa could be preferable to warfarin in the suppression of thrombosis without hemorrhagic complications.
REFERENCE COUNT: 33

L16 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1994:676182 CAPLUS
DOCUMENT NUMBER: 121:276182
TITLE: Method for differentiating the source of occult gastrointestinal bleeding by precipitating and removing hematin and assaying for peroxidase activity
INVENTOR(S): Fiedler, Paul N.; Levine, Robert A.; Wardlaw, Stephen C.
PATENT ASSIGNEE(S): USA
SOURCE: PCT Int. Appl., 18 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9422017	A1	19940929	WO 1994-US2725	19940314
US 5460969	A	19951024	US 1993-31544	19930315
CA 2158431	AA	19940929	CA 1994-2158431	19940314
CA 2158432	AA	19940929	CA 1994-2158432	19940314
EP 689675	A1	19960103	EP 1994-911584	19940314
EP 689675	B1	20011114		

R: DE, ES, FR, GB, IT, SE
PRIORITY APPLN. INFO.: US 1993-31544 A 19930315
WO 1994-US2725 W 19940314
AB The presence of fecal occult blood in a stool sample is detected by mixing a liq. stool sample with an acidic liq., such as a phosphate/citrate buffer, to ppt. hematin from the soln. The pptd. hematin is sepd. and the presence or absence of Hb is detd. by exposing the soln. to a peroxidase diagnostic assay. A pos. esponse indicates the

presence of blood originating in the lower gastrointestinal tract, a leading indicator of lower GI cancer.

L16 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1936:34357 CAPLUS
DOCUMENT NUMBER: 30:34357
ORIGINAL REFERENCE NO.: 30:4526d-g
TITLE: "Detection of occult bleeding in the gastrointestinal tract with special reference to the appearance of copratoporphyrin and hemoglobin"
AUTHOR(S): *Hacker, W.*
SOURCE: **Arch. Verdauungs-Krankh. (1935), 58, 268-97**
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB When a normal individual ingests 20 g. of his own blood, hemoglobin degradation products appear in comparable quantities in the feces, largely as hematin, partly as copratin and very slightly as copratoporphyrin. Similar products appear after the ingestion of small quantities of blood, 0.1-1.5 g., but in relatively smaller amounts, and in altered relationship: copratin may exceed hematin. The presence in feces of copratoporphyrin is not diagnostic of ulcer; of 40 cases showing positive hematerinic and, usually, copraporphyrin tests, only one positive test for copratoporphyrin was encountered. In 5 cases of carcinoma, copratoporphyrin was found in 3. Since copratoporphyrin appears in easily detectable quantity only after extensive bleeding, it would appear simpler to test for hematin and copratin, the spectroscopic evidence for which can be confirmed by chem. means. In the analytical detns., 20 g. of a uniform paste of feces was extd. with 60 cc. of a mixt. of equal amounts of alc. and ether, filtered, washed with ether and dried. Samples of this powder were extd. with glacial AcOH and the exts. then appropriately treated for spectroscopic examn. The method of Boas (Deut. med. Wochschr. 57, 1272(1931)) for the detection of unchanged hemoglobin in feces was found to be not specific.

L16 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1935:56184 CAPLUS
DOCUMENT NUMBER: 29:56184
ORIGINAL REFERENCE NO.: 29:7365b-c
TITLE: "The demonstration and significance of hemoglobin in occult bleeding in the gastro-intestinal tract"
AUTHOR(S): *Boas, I.*
SOURCE: **Klin. Wochschr. (1935), 14, 998-1001**
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB Methods are described for the identification of hemoglobin, hematin and porphyrin in feces.

L17 ANSWER 15 OF 38 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1952:45786 CAPLUS

DOCUMENT NUMBER: 46:45786
ORIGINAL REFERENCE NO.: 46:7635h-i
TITLE: Fetal hemoglobin and determination of hemoglobin via hematin hydrochloride. II
AUTHOR(S): Kunzer, Wilhelm; Peters, Theodor
CORPORATE SOURCE: Univ. Wurzburg, Germany
SOURCE: Klin. Wochschr. (1952), 30, 219-20
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB The rate of hematin formation is the same for blood from adults or umbilical cords. The absorption spectra of hematin solns. from both sources are identical.

L17 ANSWER 24 OF 38 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1937:25145 CAPLUS
DOCUMENT NUMBER: 31:25145
ORIGINAL REFERENCE NO.: 31:3514b-e
TITLE: A chemical and spectrophotometric study of immature red blood cells
AUTHOR(S): Burmester, Ben R.
SOURCE: Folia Haematol. (1937), 56, 372-97
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB In blood samples having a high percentage of immature erythrocytes, the spectrophotometric extinction coeffs. of the hemoglobin derivs. were significantly increased, those for hematoporphyrin to the greatest extent, those for globin hemachromogen second, those for alk. hematin only slightly less, those for methemoglobin least. With an increase of extinction coeffs. of hematoporphyrin there was an increase in the ratio of extinction coeffs. at 5100 and 5170 A.; this indicates the presence of a second pigment having a different absorption spectrum. The ratios of the other pigments remained approx. const. In blood samples with a high proportion of immature red cells, the extinction coeffs. at the several wave lengths tried for oxyhemoglobin, were changed in such a manner as to indicate that a significant amt. of hematoporphyrin and globin hemachromogen were present in the oxyhemoglobin soln. The ratio of nonhemoglobin Fe to total Fe is greater in samples having a high proportion of immature red cells, whereas the ratio of cleavable Fe to total Fe seems to be less, except in the case of a single group having the highest percentage of immature red cells. It is concluded that hemoglobin is formed in the early stages of erythroblast development from precursors of the porphyrin type.

L17 ANSWER 32 OF 38 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1930:49174 CAPLUS
DOCUMENT NUMBER: 24:49174
ORIGINAL REFERENCE NO.: 24:5313i,5314a-b
TITLE: Investigations on the absorption spectra of hemin
AUTHOR(S): Wahl, W.
SOURCE: Finska Kemistsamfundets Medd. (1930), 39, 55-7
DOCUMENT TYPE: Journal

LANGUAGE: Unavailable
AB W. believes hemoglobin to be a ferrous compd. contg. 4 coordinate valencies on the Fe which on oxidation goes over to a peroxo compd. with 6 coordinate valencies, while hemin is a ferric compd. with 4 coordinate valencies. Studies on the absorption spectra of hemin, oxyhemin and reduced hematin, show one broad diffuse band in the red and green parts of the spectrum. This indicated Fe with 4 coordinate valencies. In compds. with 6 coordinate Fe valeacies 2 bands are observed. These in turn fall into 2 groups: (1) those which result from addn. of neutral groups which have a strong .alpha. band and (2) those formed by addn. of acidic groups (O2, CN), which have a stronger .beta. band.

L17 ANSWER 38 OF 38 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1919:14530 CAPLUS
DOCUMENT NUMBER: 13:14530
ORIGINAL REFERENCE NO.: 13:2890h-i,2891a-b
TITLE: Absorption spectra of acid hematin, oxyhemoglobin, and carbon monoxide hemoglobin. A new hemoglobinometer
AUTHOR(S): Newcomer, H. S.
CORPORATE SOURCE: Univ. Pa. and U. S. Naval Med. School
SOURCE: J. Biol. Chem. (1919), 37, 465-96
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB "The transmissions of acid hematin, oxyhemoglobin, and CO- hemoglobin for the ultraviolet and visible spectra have been detd. to within limits of error believed not to exceed 4 and 2%, respectively. The quant. data for the O cap. of hemoglobin has been shown to agree essentially with certain spectrophotometric data and the two have been brought into correlation with each other and with the complete absorption curves of the 3 compds. The optical conditions underlying color metric hemotometry are briefly discussed." A hemoglobinometer for the clinical estn. of hemoglobin is described in which a colored glass standard of "high transmission yellow" semaphore glass is used. In thickness of about 1 mm. this glass is a very close match for acid hematin and the discrepancy between its curve and that of acid hematin is sufficiently small so that the match does not perceptibly vary with individuals. The results are more accurate that those obtained with the Miescher hemoglobinometer. The original should be consulted for details.